PROGRAM

Sunday, November 22, 2015

9:00-9:10		Opening Remarks by Koichi Kato
		Chair : Hisashi Okumura
9:10-9:50	L01	**Tigran Chalikian** (University of Toronto) "Volumetric insights into protein-cosolvent interactions"
9:50-10:20	L02	**Ryo Akiyama** (Kyushu University) "Effective attraction between negatively charged sites on proteins and ordering of proteins in an electrolyte solution"
10:20-10:50		Coffee Break
		Chair : Tomohisa Sawada
10:50-11:30	L03	**Michaele J. Hardie** (University of Leeds) "Self-assembly, ligand exchange and chiral self-sorting of coordination cages"
11:30-12:00	L04	**Kazuyoshi Murata** (National Institute for Physiological Sciences) "Dynamical ordering of virus particle for creation of integrated functions"
12:00-12:40		Poster preview (only poster prize candidates)
12:40-13:00		Group photo
13:00-14:30		Lunch
14:30-16:30		Poster Session 1 (Odd Poster Number)
		Chair : Eri Chatani
16:30-17:10	L05	**Pau Bernadó** (Centre de Biochimie Structurale) "A structural perspective of biological function and malfunction of intrinsically disordered proteins"
17:10-18:10		Panel discussion
18:20-		Banquet

Monday, November 23, 2015

		Chair : Yukiko Kamiya
9:10-9:50	L06	**David Wales** (University of Cambridge) "Energy landscapes: ordering and function"
9:50-10:20	L07	**Kazunori Sugiyasu** (National Institute for Materials Science) "Dynamic ordering of supramolecular assemblies developed on a complex energy landscape"
10:20-10:50		Coffee Break
		Chair : Ken Sato
10:50-11:30	L08	**Thomas Surrey** (The Francis Crick Institute) "Systems biochemistry of the microtubule cytoskeleton: mechanistic insight from reverse engineering"
11:30-12:00	L09	**Kensaku Mizuno** (Tohoku University) "Dynamic reordering of actin cytoskeleton in mechanical force-induced cell responses"
12:00-12:30	L10	**Tomoaki Matsuura** (Osaka University) "Dynamics of biological systems constructed *in vitro*"
12:30-14:00		Lunch
14:00-16:00		Poster Session 2 (Even Poster Number)
16:00		Closing Remarks by Koichi Kato

Poster sessions

Date

Poster session 1: 14:30-16:30, Sunday, November 22
Odd Poster Numbers (P001, P003, P005 … P093)

Poster session 2: 14:00-16:00, Monday, November 23
Even Poster Numbers (P002, P004, P006 … P094)

- All posters should be put on the boards by 14:30 on Sunday, November 22, and be removed between 16:00 and 16:30 on Monday, November 23
- Presenting authors are requested to stay with their posters during the session time above.

Banquet

Date

18:20-, Sunday, November 22

Place

Nishijin Plaza 1F Hall

List of Posters

P001 **Structural insights into intracellular quality control of glycoproteins mediated by their glucosylation**

Tong Zhu[1,2,3], Tadashi Satoh[3], Takumi Yamaguchi[1,2,3], and Koichi Kato[1,2,3]

[1]School of Physical Sciences, SOKENDAI, [2]Institute for Molecular Science and Okazaki Institute for Integrative Bioscience, National Institutes of Natural Sciences, [3]Graduate School of Pharmaceutical Sciences, Nagoya City University

P002 **Exploration of micro-macro relationships in dynamic ordering of biomolecular systems and their underlying design principles**

Koichi Kato[1,2], Tadashi Satoh[2], Takumi Yamaguchi[1,2], and Maho Yagi-Utsumi[1,2]

[1]Okazaki Institute for Integrative Bioscience, National Institutes of Natural Sciences,

[2]Graduate School of Pharmaceutical Sciences, Nagoya City University

P003 **Three-dimensional protein structure and dynamics in living cells**

Teppei Ikeya[1], Jin Inoue1, Peter Güntert[1,2] and Yutaka Ito[1]

[1]Graduate School of Science and Engineering, Tokyo Metropolitan University

[2]Institute of Biophysical Chemistry, Goethe University Frankfurt, Germany

P004 **Ultimate sensitive laser microscopy for biomolecules dissolved in a trapped microdroplet**

Kenji Sakota, Hiroshi Sekiya

Department of Chemistry, Kyushu University

P005 **Single-molecule imaging of GPCR oligomerization followed by internalization**

Masataka Yanagawa, Micho Hiroshima, and Yasushi Sako

Cellular Informatics Laboratory, RIKEN

P006 **Creation of ATP-driven cyborg rotary molecular motors**

Ryota Iino[1,2]

[1]Okazaki Institute for Integrative Bioscience, [2]Institute for Molecular Science

P007 **Influence of the secondary structure of proteins on its rotational diffusion coefficients**

Tomoyuki Yoshitake, Masahide Terazima

Graduate School of Science, Kyoto University

P008 **Site-specifically fluorescent-labeled proteins for sensing and controlling protein functions**

Takahiro Hohsaka, Keisuke Fukunaga, HUYNH NHAT Kim Phuong, Rumi Shiba, Takayoshi Watanabe

School of Materials Science, Japan Advanced Institute of Science and Technology

P009 **Structure and function analysis of the bacterial cell division proteins**

Hiryoshi Matsumura

College of Life Sciences, Ritsumeikan University

P010 **Crystallographic snapshots of pentameric structure of PBAA, an archaeal homolog of proteasome assembly chaperone**

Arunima Sikdar[1,2,3], Tadashi Satoh[3], Kentaro Kumoi[3], Kentaro Ishii[2,3], Maho Yagi-Utsumi[2,3], and Koichi Kato[1,2,3]

[1]School of Physical Science, SOKENDAI (The Graduate University for Advanced Studies), [2]Okazaki Institute for Integrative Bioscience and Institute for Molecular Science, National Institutes of Natural Sciences, [3]Graduate School of Pharmaceutical Sciences, Nagoya City University

P011 **The first crystal structure of 3.8-MDA supermolecule hemocyanin**

Yoshikazu Tanaka[1,2,3], Asuka Matsuno[2], Zuoqi Gai[1], Koji Kato[1,2], Sanae Kato[4], Takeshi Shimizu[5], Takeya Yoshioka[5], Hideki Kishimura[6], Tohru Terada[7], Min Yao[1,2]

[1]Faculty of Advanced Life Science, Hokkaido University, [2]Graduate School of Life Science, Hokkaido University, [3]JST, PRESTO, [4]Asahikawa Medical University, 5Hokkaido Industrial Technology Center, [6]Graduate School of Fisheries Science, Hokkaido University, [7]Graduate School of Agricultural and Life Sciences, The University of Tokyo

P012 **Structural basis for dimer formation of human condensin SMC hinge and its binding to DNA**

Susumu Uchiyama[1,2], Kazuki Kawahara[3], Masanori Noda[1], Takahiro Maruno[1], Tadayasu Ohkubo[3], Kiichi Fukui[1]

[1]Graduate School of Engineering, Osaka University, [2]Okazaki Institute for Integrative Bioscience, National Institutes of Natural Sciences, [3]Graduate School of Pharmaceutical Sciences, 3Osaka University

P013 **Interaction dynamics of DNA and light dependent transcription factor, aureochrome1**

Yuki Akiyama[1], Yusuke Nakasone[1], Osamu Hisatomi[2], Yoichi Nakatani[2], Masahide Terazima[1]

[1]Graduate School of Science, Kyoto University, [2]Graduate School of Science, Osaka University

P014 **Studies on molecular mechanism of dynamic ordering and disassembling of biomolecular systems**

Masahide Terazima

Department of Chemistry, Graduate School of Science, Kyoto University

P015 **Reaction dynamics of light dependent DNA-binding protein EL222**

Akira Takakado, Yusuke Nakasone, Masahide Terazima

Graduate School of Science, Kyoto University

P016 **Creation of dynamic ordering system by artificial light-responsive DNA**

Yukiko Kamiya[1,2], Hideaki Ooi[1], Hiroyuki Asanuma[1]

[1]Graduate School of Engineering, Nagoya University, [2]Institute of Materials and Systems for Sustainability (IMaSS), Nagoya University

P017 **Development of fret probe for investigation of the fate of small RNA**

Hiroshi Kamimoto[1], Yukiko Kamiya[1,2], Hiroyuki Asanuma[1]

[1]Department of Engineering, Nagoya University [2]Institute of Materials and Systems for sustainability (IMaSS), Nagoya University

P018 **A tightly hybridizable, DNA-like archtecture as a sequence-selective assembly in water**

Junya Chiba, Masahiko Inouye

Graduate School of Pharmaceutical Sciences, University of Toyama

P019 **Heat-induced conformational transition of single-stranded ribonucleic acids: a molecular dynamics simulation study**

Yoshiharu Mori[1] and Hisashi Okumura[1,2]

[1]Institute for Molecular Science, [2]The Graduate University for Advanced Studies

P020 **Development of fluorescence monitoring method for histone deacetylase activity**

Masafumi Minoshima[1,2], Yuka Tatematsu[1,2], Kazuya Kikuchi[1,2]

[1]Graduate School of Engineering, Osaka University, [2]Immunology Frontier Research Center, Osaka Universityy

P021 **Fluctuating genome structure and gene regulation**

M. Sasai, N. Tokuda, S. Fujishiro

Department of Computational Science and Engineering, Nagoya University

P022 **Structural and functional characterization of HSP27 from CHO cell**

Masafumi Yohda[1], Eiryo Sha[1], Yohei Y. Yamamoto[1], Toshihiko Oka[2], Keiichi Noguchi[3]

[1]Department of Biotechnology and Life Science, Tokyo University of Agriculture and Technology, [2]Department of Physics, Shizuoka University, [3]Instrumentation Analysis Center, Tokyo University of Agriculture and Technology

P023 **Disassembly of the self-assembled, double-ring structure of proteasome α7 homo-tetradecamer by α6**

Kentaro Ishii[1], Masanori Noda[2], Hirokazu Yagi[3], Ratsupa Thammaporn[4], Supaporn Seetaha[4], Tadashi Satoh[3], Koichi Kato[1,3,5], Susumu Uchiyama[1,2]

[1]Okazaki Institute for Integrative Bioscience, [2]Graduate School of Engineering, Osaka University, [3]Graduate School of Pharmaceutical Sciences, Nagoya City University, [4]Faculty of Science, Kasetsart University, [5]Institute for Molecular Science

P024 **Dynamical feature of huge aggregated protein, α B-crystallin**

Masaaki Sugiyama[1], Rintaro Inoue[1], Noriko Fujii[1], Kentaro Ishii[2], Susumu Uchiyama[2,3]

[1]Research Reactor Institute, Kyoto University, [2]Okazaki Institute for Integrative Bioscience, [3]Graduate School of Engineering, Osaka University

P025 **The effect of the structural compressibility change on the reaction of SyPixD**

Tsubasa Nakajima[1], Kunisato Kuroi[2], Kouji Okajima[3,4], Masahiko Ikeuchi[4], Satoru Tokutomi[3], Masahide Terazima[1],

[1]Graduate School of Science, Kyoto University, [2]Institute for Molecular Science, [3]Graduate School of Science, Osaka Prefecture University, [4]Graduate School of Arts and Science, Tokyo University

P026 **Exploring regulatory association and dissociation processes of biological molecules constituting a functional module**

Hironari Kamikubo

Graduate School of Materials Science, Nara Institute of Science and Technology

P027 **Structural investigation of direct interaction between Shootin1 and cortactin by the titration SAXS measurements**

Junko Makino[1], Keito Yoshida[1], Yusuke Kubo[2], Kentarou Baba[2], Yoichi Yamazaki[1], Naoyuki Inagaki[2], Mikio Kataoka[1], Hironari Kamikubo[1]

[1]Graduate School of Materials Science, Nara Institute of Science and Technology [2]Graduate School of Biological Sciences, Nara Institute of Science and Technology

P028 **Functional analysis of a splicing isoform of shootin1**

Takunori Minegishi, Wataru Yoshida, Yasuyuki Uesugi, Naoyuki Inagaki

Graduate School of Biological Sciences, Nara Institute of Science and Technology

P029 **SAXS study on early aggregation preceding the nucleation of insulin amyloid fibrils**

Eri Chatani[1], Rintaro Inoue[2], Hiroshi Imamura[3], Masaaki Sugiyama[2], Minoru Kato[3], Masahide Yamamoto[4], Koji Nishida[5], Toshiji Kanaya[5]

[1]Graduate School of Science, Kobe University, [2]Research Reactor Institute, Kyoto University, [3]College of Pharmaceutical Science, Ritsumeikan University, [4]Kyoto University, [5]Institute for Chemical Research, Kyoto University

P030 **Elucidating the mechanisms of the amyloid fibril formation via prefibrillar intermediates; a case study on insulin b chain**

Naoki Yamamoto[1], Shoko Tsuhara[1], Eri Chatani[1]

[1]Graduate School of Science, Kobe University

P031 **Regulation of amyloid formation by targeting the conformational fluctuations of immunoglobulin light chain variable domain**

Daizo Hamada[1,2,3]

[1]Graduate School of Medicine and [2]Graduate School of Engineering, Kobe University, [3]Community-University Research Cooperation Center, Mie University

P032 **Fibril inhibition mechanism of human calcitonin by curcumin as revealed by NMR and MD simulation**

Hikari Itoh-Watanabe[1], Ken Takeuchi[1], Kengo Daidoji[1], Shuhei Toyoda[1], Namsrai Javkhalantugs[1,2], Izuru Kawamura[1], Kazuyoshi Ueda[1], Hiroshi Hirota[3], Tsutomu Nakayama[4], Akira Naito[1]

[1]Graduate School of Engineering, Yokohama National University, [2]Center for Nanoscience and Nanotechnology, School of Engineering, School of Engineering and Applied Science, National

University of Mongolia, [3]Antibiotic Laboratory, Riken, [4]Nippon Verterinary and Life Science University

P033 **Analysis of amyloid formation and inhibition mechanisms of human calcitonin**

[1]Chiaki Ota, [1]Hiroko Tanaka, [2]Tomoyasu Aizawa, [1]Yoichi Yamazaki, [1]Mikio Kataoka, [1]Hironari Kamikubo

[1]Grad. Sch. Mat. Sci., NAIST, [2]Graduate School of Life Science, Hokkaido University

P034 **All-atom molecular dynamics simulations of Aβ amyloid fibril**

Hisashi Okumura[1,2], Satoru G. Itoh[1,2]

[1]Research Center for Computational Science, Institute for Molecular Science, [2]Department of Structural Molecular Science, The Graduate University for Advanced Studies

P035 **Transient dimerization and conformational changes of blue light sensor protein phototropin**

Yusuke Nakasone[1]; Koji Okajima[2]; Yusuke Aihara[1]; Akira Nagatani[1]; Satoru Tokutomi[2]; Masahide Terazima[1]

[1]Graduate School of Science, Kyoto University, [2]Graduate School of Science, Osaka Prefecture University.

P036 **Dynamic structural change of Blrp1 detected by transient grating method**

Kosei Shibata, Yusuke Nakasone, Masahide Terazima

Graduate School of Science, Kyoto University

P037 **Signaling kinetics of cyanobacterial phytochrome (Cph1)**

Kimitoshi Takeda, Masahide Terazima

Department of Chemistry, Kyoto University

P038 **H-bonding geometry of photoactive yellow protein calculated by combination of oniom and multicomponent quantum mechanics**

Yusuke Kanematsu and Masanori Tachikawa

Graduate School of NanoBioScience, Yokohama City University

P039 **Dynamic interaction between Kai proteins dependent on phosphorylation states of KaiC revealed by HS-AFM**

Takayuki Uchihashi[1], Tetsuya Mori[2], Shogo Sugiayma[1], Carl H. Johnson[2], Toshio Ando[1]

[1]Department of Physics/Bio-AFM FRC, Kanazawa University, [2]Department of Biological Sciences, Vanderbilt University

P040 **Studies on cyanobacterial circadian clock system from different perspectives**

Jun Abe[1], Atsushi Mukaiyama[1,2], Yoshihiko Furuike[1,2], Shuji Akiyama[1,2]

[1]Institute for Molecular Science, [2]SOKENDAI

P041 **Insight into the function of alanine-422 residue of KaiC involved in resetting of the cyanobacterial circadian clock**

Kazuki Nagata[1], Kazuki Terauchi[1, 2]

[1]Graduate School of Life Sciences, [2]Department of Life Sciences, Ritsumeikan University

P042 **Punctuation mechanism of artificial protein needle**

Takafumi Ueno[1], Takayuki Uchihashi[2], Tadaomi Furuta[1]

[1]Department of Bioscience and Biotechnology, Tokyo Institute of Technology, [2]Department of Physics, Kakazawa University

P043 **Complete and peptide-bound structures of the Sec translocon**

Yoshiki Tanaka[1], Yasunori Sugano[1], Mizuki Takemoto[2,3], Takaharu Mori[4], Arata Furukawa[1], Tsukasa Kusakizako[2,3], Kaoru Kumazaki[2,3], Ayako Kashima[1], Ryuichiro Ishitani[2,3], Yuji Sugita[4], Osamu Nurek[i2,3], Tomoya Tsukazaki[1,5]

[1]Department of Systems Biology, Nara Institute of Science and Technology, [2]Department of Biological Sciences, The University of Tokyo, [3]Global Research Cluster, RIKEN, [4]Theoretical Molecular Science Laboratory, RIKEN, [5]JST, PRESTO

P044 **Restless crowds of the KcsA potassium channels inside a cluster: high speed AFM imaging and effects of the membrane lipids**

Ayumi Sumino[1], Takayuki Uchihashi[2], Shigetoshi Oiki[1]

[1]Faculty of Medical Sciences, University of Fukui, [2]Graduate School of Science, Kanazawa University

P045 **Alteration of lipid packing states by curvature inducing peptides to promote membrane translocation of arginine-rich cell-penetrating peptides**

Shiroh Futaki, Tomo Murayama

Institute for Chemical Research, Kyoto University

P046 **Visualization of COPII minimal machinery during membrane association in an artificial planar lipid bilayer**

Hirohiko Iwasaki, Ken Sato

Depatment of Life Sciences, Graduate School of Arts and Sciences, University of Tokyo

P047 **Catalyst-producing system in a self-reproducing giant vesicle**

Kensuke Kurihara[1,2,3], Li Sheng[1,2]

[1]Deptartment of Bioorganization Research, Okazaki Institute for Integrative Bioscience, [2]Institute for Molecular Science, [3]Research Center for Complex Systems Biology, The University of Tokyo

P048 **Energy transfer process in DPPC/cholesterol lipid bilayer membrane observed with picosecond time-resolved Raman spectroscopy**

Sho Kitamura, Tomohisa Takaya, Koichi Iwata

Department of Chemistry, Gakushuin University

P049 **Impact of local anethetics on the SM-rich domain formed in artificial raft membranes**

Masanao Kinoshita, Takeshi Chitose, Nobuaki Matsumori

Department of Chemistry, Faculty of Science, Kyushu University

P050 **Integrrated analysis of lipid rafts**

Nobuaki Matsumori[1], Masanao Kinoshita[1], Michio Murata[2,3]

[1]Department of Chemistry, Kyushu University, [2]Department of Chemistry, Osaka University, [3]JST-ERATO

P051 **Screening of the agents to overcome drug resistance of human hepatoma HEPG2 cells by using three-dimensional culture**

Takahiro Mizutami, Yuya Ohta, Yuji Komizu, Taku Matsushita

Dept. of Applied Life Science, Sojo University

P052 **Mechanical activity of dynein and its dynamical ordering underlying oscillatory movement of sperm flagella**

Chikako Shingyoji[1], Hiroshi Yoke[1], Izumi Nakano[1], Yuichi Inoue[2], Hideo Higuchi[3]

[1]Department of Biological Sciences, Graduate School of Science, The University of Tokyo, [2]Institute of Multidisciplinary Research, Tohoku University, [3]Department of Physics, Graduate School of Science, The University of Tokyo

P053 **Formation of bioinspired π-system–ion complexes exhibiting dynamic ordering**

Hiromitsu Maeda

College of Pharmaceutical Sciences, Ritsumeikan University

P054 **Simple conformational search algorithms for folding problems**

Yasuteru Shigeta and Ryuhei Harada

Department of Physics, Graduate School of Pure and Applied Sciences, University of Tsukuba

P055 **Oligomer formation pathway of Aβ fragments by coulomb replica-permutation MD simulations**

Satoru G. Itoh[1,2], Hisashi Okumura[1,2]

[1]Institute for Molecular Science, [2]The Graduate University for Advanced Studies

P056 **replica-exchange molecular dyamics simulation of n-glycans in Fc complexed with FcγRIIIa**

Yoshitake Sakae[1], Takumi Yamaguchi[2], Tadashi Sato[3], Saeko Yanaka[2], Koichi Kato[2], Yuko Okamoto[1]

[1]Department of Physics, Nagoya University, [2]Institute for Molecular Science, [3]Department of Structural Biology and Biomolecular Engineering, Nagoya City University

P057 **Dependence of effective interaction between macroanions in electrolyte solution on valence of co-ions**

Takumi Yamashita, Ryo Akiyama

Department of Chemistry, Kyushu University

P058 **Aggregation of acidic proteins and effective attraction between like-charged particles**

Takuto Sawayama, Ryo Akiyama

Department of Chemistry, Kyushu University

P059 **Effects of depletion interaction on the crystallization**

Ayumi Suematsu[1], Akira Yoshimori[1,2],, Ryo Akiyama[1]

[1]Depertment of Physics, Kyushu University, [2]Depertment of Physics, Niigata University

P060 **Distinct dissociation kinetics between ion pairs: solvent-coordinate free-energy landscape analysis**

Yoshiteru Yonetani

Quantum Beam Science Center, Japan Atomic Energy Agency

P061 **Theoretical study on a pyrrole rotation of the anion binding system with DFT calculation**

Tomoki Kato, Yui Sakuma, Takako Mashiko, Masanori Tachikawa

Division of Materials Science, International College of Arts and Sciences, Yokohama City University

P062 **Exploration of the structure of the folding intermediate by MD simulations**

Yukihito Kajikawa[1], Yuko Okamoto[1,2,3,4]

[1]Grad. Sch. Sci., Nagoya Univ., [2]Struct. Biol. Res. Center, Grad. Sch. Sci. Nagoya Univ.,

[3]Center Comput. Sci., Grad. Sch. Eng., Nagoya Univ., [4]Info. Tech. Center, Nagoya Univ.

P063 **Master equation analysis on intermediates in self assembly process of an octahedron-shaped coordination capsule**

Y. Matsumura[1], S. Hiraoka[2], H. Sato[1,3]

[1]Department of Molecular Engineering, Kyoto University, [2]Department of Basic Science, Graduate School of Arts and Sciences, The University of Tokyo, [3]ESICB, Kyoto University

P064 **Predicting epitope of omalizumab to IgE using MD simulations**

Hiroyuki Kawamoto[1], Yuko Okamoto[1,2,3,4]

[1]Grad. Sch. Sci., Nagoya Univ.; [2]Struc. Biol. Res. Center, Grad. Sch. Sci. Nagoya Univ.; [3]Center Comp. Sci., Grad. Sch. Eng., Nagoya Univ., Info. [4]Tech. Center, Nagoya Univ

P065 **Role of calcium ion in molecular recognition process of calcium-dependent carbohydrate-binding module**

S. Tanimoto[1], N. Yoshida[1], M. Higashi[2], and H. Nakano[1]

[1]Department of Chemistry, Graduate School of Sciences, Kyushu University, [2]Department of Chemistry, Biology and Marine Science, University of the Ryukyu

P066 **Role of water on domain-swapped oligomer formation of Cytochrome C**

Norio Yoshida[1], Masahiro Higashi[2], Shun Hirota[3]

[1]Department of Chemistry, Graduate School of Science, Kyushu University, [2]Department of Chemistry,

Biology and Marine Science, University of the Ryukyus, [3]Graduate School of Materials Science, Nara Institute of Science and Technology

P067 **Replica-exchange molecular dynamics simulations of metal-ligand self-assembly into nanosphere ML**

Yuhei Tachi[1], Sota Sato[2], Makoto Yoneya[3], Yuko Okamoto[1]

[1]Department of Physics, School of Science, The University of Nagoya, [2]WPI-AIMR, and Department of Chemistry, School of Science, The University of Tohoku, [3]Nanosystem Research Institute, National Institute of Advanced Industrial Science and Technology

P068 **Interactions among biological molecular assembly and among artificial molecular assembly and large-scale structural transformations**

Yuko Okamoto[1,2,3,4,5]

[1]Dept. Physics, Grad. Sch. Sci., Nagoya Univ., [2]Struct. Biol. Res. Center, Grad. Sch. Sci., Nagoya Univ., [3]Center Comput. Sci., Grad. Sch. Eng., Nagoya Univ., [4]Info. Tech. Center, Nagoya Univ., [5]JST-CREST

P069 **Estimating structural stability of self-assembled clusters**

Yuichiro Yoshida[1] and Hirofumi Sato[1,2]

[1]Graduate School of Engineering, Kyoto University, [2]Elements Strategy Initiative for Catalysts and Batteries, Kyoto University

P070 **Molecular theories for self-organization and order formation**

Hirofumi Sato[1,2], Takeshi Yamamoto[3]

[1]Department of Molecular Engineering, Kyoto University, [2]Elements Strategy Initiative for Catalysts and Batteries, Kyoto University, [3]Department of Chemistry, Kyoto University

P071 **The effect of substituted groups on the stability of nanocube consisting of gear-shaped amphiphiles**

Kazuho Ogata, Tatsuo Kojima, Shuichi Hiraoka

Graduate School of Arts and Sciences, The University of Tokyo

P072 **Optoelectronic properties of self-assembled molecular systems**

Takatoshi Fujita, Takeshi Yamamoto

Department of Chemistry, Graduate School of Science, Kyoto University

P073 **Theoretical study with the CH3 groups of self-assembled nanocube in aqueous methanol solvent**

Takako Mashiko[1], Shuichi Hiraoka[2], Umpei Nagashima[3], Masanori Tachikawa[1]

[1]Graduate School of Nanobioscience, Yokohama City University, [2]Graduate School of Arts and Sciences, The University of Tokyo, [3]FOCUS

P074 **Self assembly of gear-shaped amphiphiles into a molecular capsule (nanocube): computational study**

Takeshi Yamamoto[1], Hirofumi Sato[2]

[1]Graduate School of Science, Kyoto University, [2]Graduate School of Engineering, Kyoto University

P075 **Final stage of the self-assembly process on $[Pd_2L_4]_4$+cage complex in solvent with DFT calculation**

Yui Sakuma[1], Takako Mashiko[1], Shuichi Hiraoka[2], Umpei Nagashima[3], Masanori Tachikawa[1]

[1]Graduate School of Nanobioscience, Yokohama City University, [2]Graduate School of Arts and Sciences, The University of Tokyo, [3]FOCUS

P076 **Self-assembly process of coordination assemblies and development of supramolecular cube with extremely high thermal stability**

Shuichi Hiraoka

Graduate School of Arts and Sciences, The University of Tokyo

P077 **The importance of triple-π interaction and Van der Waals interaction for the thermal stability of nanocube based on gear-shaped amphiphiles**

Yiyang Zhan, Tatsuo Kojima, Shuichi Hiraoka

Graduate School of Arts and Sciences, The University of Tokyo

P078 **Dynamic chirality transfer from structurally switchable helical metal complex for regulating supramolecular helicity**

Hiroyuki Miyake

Department of Chemistry, Graduate School of Science, Osaka City University

P079 **Self-assembly process of coordination macrocycles**

Ayako Baba, Tatsuo Kojima, Shuichi Hiraoka
Graduate School of Arts and Sciences, The University of Tokyo

P080 **Relaxation phenomena and development of structure in a physically cross-linked telechelic polymers**

Masahiko Annaka, Shintaro Yashima
Graduate School of Science, Kyushu University

P081 **The self-assembly process of Pd_2L_4 coordination cages**

Shumpei Kai, Tatsuo Kojima, Shuichi Hiraoka
Graduate School of Arts and Sciences, University of Tokyo

P082 **Development of dynamical ordering of artificial molecules by mimicking biomolecular systems**

Sota Sato[1,2]
[1]AIMR and Graduate School of Science, Tohoku University, [2]JST, ERATO Isobe Degenerate π-Integration Project

P083 **Accommodation of steroids within a synthetic cavity**

Taito Kato, Tomohisa Sawada, Makoto Fujita
Graduate School of Engineering, The University of Tokyo

P084 **Artificial peptide-based nanostructures via coordination-driven folding and assembly**

Tomohisa Sawada, Motoya Yamagami, Yusuke Otsubo, Asami Matsumoto, Makoto Fujita
Graduate School of Engineering, The University of Tokyo

P085 **Specific recognition of d-amino-acid-containing short peptides by a synthetic cavity**

Kiyohiro Adachi, Tomohisa Sawada, Makoto Fujita
Graduate School of Engineering, The University of Tokyo

P086 **Synthesis of macromolecular [2]rotaxane having poly(ethylene oxide) as an axle component and its application to rotaxane cross-linked polymers**

Daisuke. Aoki[1], Daisuke Suzuki[2], Toshikazu Takata[1]
[1]Department of Organic and Polymeric Materials, Tokyo Institute of Technology, [2]Graduate School of Textile Science & Technology, Shinshu University

P087 **Functionalization of a self-assembled tetrahedral capsule**

Masatoshi Mori, Tomohisa Sawada, Makoto Fujita

Graduate School of Engineering, The University of Tokyo

P088 **Synthesis and dynamical assembly of polymers connected by rotaxane linkage**

Daisuke Aoki, Toshikazu Takata

Department of Organic and Polymeric Materials, Tokyo Institute of Science and Technology

P089 **Phase separation of thermosensitive polymers induced by chemical reaction**

Masami Naya[1], Yoshiki Kuroshima[2], Yoshimi Hamano[1], Kenta Kokado[1,2,3], Kazuki Sada[1,2,3]

[1]Graduate School of Chemical Sciences and Engineering, Hokkaido University, [2]Department of Chemistry, School of Science, Hokkaido University, [3]Department of Chemistry, Faculty of Science, Hokkaido University

P090 **Construction of metal-organic frameworks (MOF) -motor protein conjugates**

Masaki Ito[1], Takumi Ishiwata[1], Kenta Kokado[1,2], Akira Kakugo[1,2], Kazuki Sada[1,2]

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P091 **Synthesis and properties of hydrogel particles prepared with cyclodextrin type pseudo-polyrotaxane cross-linkers**

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P092 **Control of oscillation period of smart polymer hydrogel particles driven by chemical reaction**

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P093 **Microscopic structural changes in hydrogel particles in the presence of target molecules**

investigated by small- and wide-angle X-ray scattering

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P094 **Membrane curvature controls the dynamics of COPII coat during vesicle formation**

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